



→ Completely
Controlled Process

System Specification

SYGEF® Standard
Piping systems in PVDF



Excellent system solution
for demanding chemical applications

+GF+

SYGEF® Standard – System Specification

Material	Polyvinylidene Fluoride (PVDF)
Color	translucent
Density	~1.78g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	30–35mJ/m ²
Linear expansion coefficient	0.12–0.18mm/mK (DIN 53752)
E-module (tensile strength)	2100N/mm ² (ISO 527/ASTM D 790)
Thermal conductivity	0.19W/mK (DIN 52612)
Surface resistivity	5 x 10 ¹⁴ Ωcm (IEC 60093)
Resin	Virgin, homopolymer, unpigmented (ASTM D-3222)
Dimension	d 20 (½")–d 315 (12") in accordance to ISO 10931
Pressure rating	Pipes/fittings: 20–110 mm PN 16 (232 PSI); 160–315 mm PN 10 (150 PSI) Valves: separate specification
Temperature rating	from –20°C to 140°C (–4°F to 284°F)
Production	Fittings/valves: injection molded Pipes: extruded and stress relieved (ISO 10931-2) Valves: injection molded (additional available oil free treated and paint compatible / silicon free)
Surface finish	Inner surface Ra ≤0.5µm (20µin) for injection molded and extruded components
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
Testing and inspection (ISO 10931)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing
Approvals/conformance⁽¹⁾	ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) UL 723 ASTM E-84 25/50 for building plenums for sizes 20–75 mm
Welding technology	BCF® Plus, bead and crevice free fusion, size d 20 (½")–d 110 (4") IR® Plus, infrared fusion (DVS 2207-6), size d 20 (½")–d 315 (12") BF, butt fusion (DVS 2207-15) Socket Fusion, size d 20 (½") – d 63 (2"), ASTM D-2657
Documentation⁽²⁾	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1b
Packing⁽³⁾	Multiple components single bagged in specified bag
Labeling	Brand Name Product Description Code Number Material Dimension CE-labeling
Main applications	Uses include delivery of pharmaceutical grade purified water (PW) and DI water, using hot water, steam chemical or ozone sanitization. Due to its excellent chemical resistance it is widely used in chemical distribution systems.

⁽¹⁾ For thermoplastic material only

⁽²⁾ on request

⁽³⁾ not for socket fusion products

SYGEF® Standard → packed to preserve value



Any questions? Would you like for us to contact you?

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The technical data is not binding and not an expressly warranted characteristic of the goods.
It is subject to change. Please consult our General Conditions of Supply.

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